

## CLAIMS

What is claimed is:

1. A method for providing software and file distribution management, comprising:

loading a user profile for an end user into a client system via an intelligent agent, said profile containing current software installed, files downloaded, and registered channels for said client system;

listening in to registered channels by an intelligent agent resident on said client system; and

if a new message is received, determining if said new message is applicable to said client system;

wherein applicable messages result in:

querying said client system to execute a task based upon said message;

executing said task in accordance with said client system's preferences;

and

updating a look-up system with results of task execution.

2. The method of claim 1, wherein if said user profile does not exist:  
  
creating at least one registered channel for said end user;  
  
creating a user profile that includes said at least one registered channel; and  
  
storing said user profile in a data repository accessible by said intelligent agent.

3. The method of claim 2, wherein said creating at least one registered channel includes:

basing a creation of said at least one registered channel on at least one of:  
  
information retrieved from said look-up system, said information  
associated with said client system requirements; and  
  
inputs received from said end user via said client system; and  
  
storing said registered channel in said data repository.

4. The method of claim 1, wherein said listening in to registered channels by an intelligent agent comprises:

opening a communication connection to a message broker;

receiving said new message from said message broker;

reading a message header of said new message;

discarding said message based upon said reading a message header and upon an occurrence of at least one of:

said message header indicates that said new message is not associated with one of said registered channels;

software associated with said new message has already been installed on said client system;

an end user has requested that said software relating to said new message should not be installed; and

a file associated with said new message has already been downloaded.

5. The method of claim 1, wherein said registered channels include software and hardware requirements for groups of end users that share common software and hardware requirements.

6. The method of claim 1, wherein said new message includes information relating to at least one of:

- a new software product;
- a new version of an existing software product;
- an obsolete software product;
- a software product patch;
- a new software provider;
- an obsolete software provider;
- a new file;
- an updated file;
- a new hardware device;
- a new version of an existing hardware device;
- an obsolete hardware device.

7. The method of claim 1, wherein said look-up system stores:

- information relating to software or file requirements for said registered channels;
- lists of providers of software products or files utilized by said client systems; and
- addresses where software or files are physically stored.

8. A method for providing software and file distribution management, comprising:

listening in on a server for updated information relating to software, software providers, files, and file providers via a communications interface;

if said updated information is detected:

publishing said updated information to a look-up system for access by a client system; and

allocating a software provider or file provider associated with said updated information upon receiving a download request for software or files by said client system.

9. The method of claim 8, further comprising:

crawling said look-up system for said updated information based upon at least one of:

a pre-defined time interval for a crawling task; and

manual initiation of a crawling task.

10. The method of claim 9, wherein said crawling said look-up system includes:

composing a channel specific message relating to said updated information; and  
publishing said channel specific message to a message broker operable for notifying client systems affected by said updated information.

11. The method of claim 8, wherein said allocating a software provider associated with said updated information includes:

selecting a software provider or file provider that is geographically closest to said client system when a plurality of software or file providers are detected and said plurality of software or file providers are not reserved beyond their capacities during a time slot requested for download by said client system;

if there is no software provider or file provider available, sending a message to said client system requesting said client system select a different time slot; and

if one software provider or file provider is selected and is available, reserving said time slot requested for download by said client system.

12. The method of claim 10, further comprising:

controlling a time interval of publishing said channel specific message to said registered channels via said message broker in a manner that increases or decreases an awareness of said updated information, said controlling operable for managing download requests from client systems and managing system loads.

13. A storage medium encoded with machine-readable computer program code for providing software and file distribution management, said storage medium including instructions for causing a computer to implement a method, comprising:

loading a user profile for an end user into a client system via an intelligent agent, said profile containing current software installed, files downloaded, and registered channels for said client system;

listening in to registered channels by an intelligent agent resident on said client system; and

if a new message is received, determining if said new message is applicable to said client system;

wherein applicable messages result in:

querying said client system to execute a task based upon said message;

executing said task in accordance with said client system's preferences; and

updating a look up system with results of task execution.

14. The storage medium of claim 13, wherein if said user profile does not exist:

creating at least one registered channel for said end user;

creating a user profile that includes said at least one registered channel; and

storing said user profile in a data repository accessible by said intelligent agent.

15. The storage medium of claim 14, wherein said creating at least one registered channel includes:

basing a creation of said at least one registered channel on at least one of:

information retrieved from said look-up system, said information associated with said client system requirements; and

inputs received from said end user via said client system; and

storing said registered channel in said data repository.



16. The storage medium of claim 13, wherein said listening in to registered channels by an intelligent agent comprises:

opening a communication connection to a message broker;

receiving said new message from said message broker;

reading a message header of said new message;

discarding said message based upon said reading a message header and  
upon an occurrence of at least one of:

said message header indicates that said new message is not  
associated with one of said registered channels;

software associated with said new message has already been  
installed on said client system;

an end user has requested that said software relating to said new  
message should not be installed; and

a file associated with said new message has already been  
downloaded.

17. The storage medium of claim 13, wherein said registered channels include software and hardware requirements for groups of end users that share common software and hardware requirements.

18. The storage medium of claim 13, wherein said new message includes information relating to at least one of:

- a new software product;
- a new version of an existing software product;
- an obsolete software product;
- a software product patch;
- a new software provider;
- an obsolete software provider;
- a new file;
- an updated file;
- a new hardware device;
- a new version of an existing hardware device;
- an obsolete hardware device.

19. The storage medium of claim 13, wherein said look-up system comprises:  
information relating to software requirements or file requirements for said  
registered channels;

- lists of providers of software products or files utilized by said client systems; and
- addresses where software or a file is physically stored.

20. A storage medium encoded with machine-readable computer program code for providing software and file distribution management, said storage medium including instructions for causing a server to implement a method, comprising:

listening in on a server for updated information relating to software, software providers, files, and file providers via a communications interface;

if said updated information is detected:

publishing said updated information to a look-up system for access by a client system; and

allocating a software provider or file provider associated with said updated information upon receiving a download request for software or a file by said client system.

21. The storage medium of claim 20, further comprising instructions for causing said server to implement:

crawling said look-up system for said updated information based upon at least one of:

a pre-defined time interval for a crawling task; and

manual initiation of a crawling task.

22. The storage medium of claim 21 wherein said crawling said look-up system includes:

composing a channel specific message relating to said updated information; and

publishing said channel specific message to a message broker operable for notifying client systems affected by said updated information.

23. The storage medium of claim 20, wherein said allocating a software provider associated with said updated information includes:

selecting a software provider or file provider that is geographically closest to said client system when a plurality of software providers are detected and said plurality of software providers are not reserved beyond their capacities during a time slot requested for download by said client system;

if there is no software provider or file provider available, sending a message to said client system requesting said client system select a different time slot; and

if one software provider or file provider is selected and is available, reserving said time slot requested for download by said client system.

24. The storage medium of claim 22, further comprising instructions for causing said server to implement:

controlling a time interval of publishing said channel specific message to said registered channels via said message broker in a manner that increases or decreases an awareness of said updated information, said controlling operable for managing download requests from client systems and managing system loads.

25. A system for providing software and file distribution management, comprising:

- a client system;
- a link to a server, said server including a communications interface;
- an intelligent agent executing on said client system; wherein said intelligent agent performs:
  - loading a user profile for an end user into said client system, said profile containing current software installed, files downloaded, and registered channels for said client system;
  - listening in to said registered channels; and
  - if a new message is received, determining if said new message is applicable to said client system;

wherein applicable messages result in:

- querying said client system to execute a task based upon said message;
- executing said task in accordance with said client system's preferences;

and

- updating a look-up system with results of task execution via said communications interface.

26. The system of claim 25, wherein said look up system stores:  
  
information relating to software requirements or file requirements for said registered channels;  
  
lists of providers of software products or files utilized by said client system; and  
  
addresses where software or a file is physically stored.

27. The system of claim 25, further comprising a link to a service provider wherein;  
  
said executing a task in accordance with said client system's preferences includes performing at least one of:

downloading and installing new software;  
  
downloading and installing a new version of existing software;  
  
downloading and installing a patch for existing software;  
  
downloading a file;  
  
scheduling an installation for said new software;  
  
scheduling an installation for said new version of existing software;  
  
scheduling an installation for said patch;  
  
scheduling a download for said file;  
  
deleting existing software; and  
  
scheduling deletion of said existing software.

28. A system for providing software and file distribution management, comprising:

a host system including:

a server in communication with a data repository;

a task allocator executing on said server;

a publisher executing on said server;

a crawler service executing via said publisher;

a communications interface; and

a look-up system stored in said data repository; and

a software or file management administrator client system in communication with said host system;

wherein an individual on said software or file management administrator client system performs:

listening in on said server for updated information relating to software, software providers, files, and file providers via said communications interface; and if said updated information is detected:

publishing said updated information to said look-up system for access by at least one client system; and

allocating a software provider or file provider associated with said updated information upon receiving a download request for software or files by said at least one client system.

29. The system of claim 28, wherein said task allocator allocates software download tasks and file download tasks based upon factors including at least one of:

a location of a repository associated with said download;

an operating system associated with said download, and

an available time that is determined in accordance with a schedule specified by an end user of a client system.

30. The system of claim 28, wherein said publisher receives information for publication from at least one of said communications interface and said crawler service and publishes said information to associated registered channels.